

February began with a well defined ridge of high pressure across the southern parts of the country leading to a continuation of the settled conditions which had dominated much of the last week of January. Days were very sunny but cool, maximum temperatures remaining below 10C and with around 7 hours of sunshine daily. Nights, on the other hand, were decidedly cold, grass minima falling to minus 7.8C on the 1st and no higher than minus 4.2C on the 4th. By the 4th the ridge had retreated to all but the southernmost counties as a cold front edged slowly southwards across the area bringing little more than a belt of cloud and slight rain.

The 5th saw this ridge persisting across the southern areas of the UK as a deepening Atlantic low moved towards Iceland. The resultant mainly south westerly air stream was mild though cloudy and the ensuing day was one of brief sunshine and very light, intermittent spells of rain. By the 6th the centre of high pressure had migrated to Germany as a cold front associated with the deep low off Iceland began its slow movement south eastwards at around 15 knots.

Low pressure remained the dominant feature of the synoptic situation over the next few days, both the 7th and the 8th seeing associated cold fronts moving south eastwards across the area. These, however, brought little other than cloud and intermittent rain, the south westerly winds associated with the systems leading to very mild conditions, maximum temperatures reaching 11.4C on the 8th. With the high pressure centre over the near Continent and low pressure to the west the mild south westerly air stream continued over the UK. Unfortunately this was a cloudy air stream and so the 9th was a day without sunshine and a maximum day temperature of 10C.

High pressure was to remain centred over Germany for several days with almost stationary frontal systems plaguing Scotland and the far north of England. This situation led to severe flooding in parts of Scotland and extremely mild conditions over England, especially the western Midlands and Wales where the southerly air flow cascaded tropical air across many parts of the region. Here the temperature reached 16.8C during the afternoon of the 13th creating a new maximum for February by breaching the 16.1C set in 1990. By the 15th the high over Germany was declining a little as frontal systems from an Atlantic low attempted to force their way into the west of the country. This resulted in a mainly cloudy day after fleeting early sunshine, though it remained dry with a maximum temperature of 13C.

The 16th began with a freshening westerly air flow as a front moved hesitantly south eastwards bringing a period of intermittent rain from 1237-1821 amounting to no more than a trace. Skies began to clear late evening on the 16th and by dawn on the 17th a fairly widespread ground frost of minus 2.8C was being recorded. With the high pressure centred over northern Germany bringing in light west to south west winds, the day was completely cloud free with 9.7 hours of sunshine recorded and a maximum temperature of 14.1C.

The high pressure remained centred over near Europe for the next few days gradually declining and allowing frontal systems to make progress towards the UK. With winds mainly from the SW temperatures climbed steadily peaking at 13.3C on the 20th. By the 21st an active cold front crossed the region bringing hail and thunder briefly around 0900 as the system cleared south eastwards. In its wake winds settled W or NW with cooler and much clearer air flooding across the region from the west as the high centre over Europe declined and a new high developed over west Biscay.

This led to a NW air stream over the West Midlands with a weak frontal system crossing NW to SE early on the 23rd as the parent depression migrated rapidly from NW Scotland towards Scandinavia. A further high pressure centre then developed to the south west attaining a central pressure of 1040 hPa by the 25th bringing in very settled conditions and a mild south westerly air flow across the country. This lasted well into the 26th by which time the high centre had moved well into Europe declining as it went allowing a cold front to spread much cooler westerlies across the country from late on the 26th.

By the 27th a deep depression off SW Scotland and a decaying anticyclone in the Bay of Biscay dragged a brisk and cool westerly air stream across the area. Periods of intermittent slight rain occurred during the afternoon with spells of fleeting sunshine amounting to less than an hour. This cooler westerly flow continued into the 28th with an early ground frost developing. The day then saw spells of light snow and hail with long sunny periods, maximum temperatures reaching no higher than 7.5C, the coldest day since the 2nd.

SUMMARY FOR FEBRUARY 1998.

The month set several new records in the fields of temperature, sunshine and rainfall in data extending back for half a century.

The 16.8C recorded on the 13th was the highest February temperature on record here, beating the 16.1C of February 23rd 1990. The mean daily temperature of 7.1C also topped the previous record of 7.0C again set in 1990 whilst the mean maximum of 10.6C was itself the highest ever recorded in February. In fact, all temperatures, air, soil and radiation were significantly above the 30 year means by as much as 5.5C in the case of the warmest day.

Rainfall totalling 14.1mm was the lowest since 1993 giving the sixth driest February since 1946. Measurable rain fell on only 5 days (normal is 14) with the wettest day on the 21st with no more than 4.5mm of rain. The duration of rain over the month was 11.9 hours from a normal expectation of 53.7 hours, or just 22%.

Sunshine, though not breaking any records, was well above average, the 90 hours recorded being around half as much again as expected. It was the sunniest February since 1988 and the second sunniest on file. The 9.7 hours of the 17th was about the maximum attainable for so early in the year.

There were 4 air and 12 ground frosts, both down on normal, with one day of thunder and 2 occasions of snow or sleet, though no lying snow was recorded at 0900. Much of this exceptional weather was due to the predominantly south to west winds which blew across the region for 22 days of the month bringing in warm air from the south Atlantic.